DM-MD8X8/16X16/32X32

DigitalMedia™ Switchers

quickstart guide

1 Before Starting

CAUTION: Do not connect power cords until instructed to do so.

NOTE: Before beginning any of these QuickStart procedures, make certain that all DigitalMedia™ cables are installed throughout the home.

NOTE: Unless stated otherwise, all illustrations and procedures apply equally to all switchers.

2 Install/Replace Input/Output Cards

Input and output cards are typically installed prior to shipment of the DigitalMedia switchers. If, however, input cards (or output cards for the DM-MD8X8/32X32 only) need to be installed or replaced in the field, follow the instructions below. For more information, refer to the latest version of the DigitalMedia Card Installation Guide (Doc. 6757), available from the Crestron website (www.crestron.com/manuals).

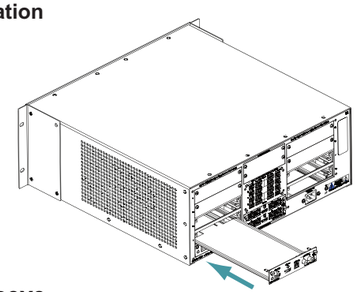
CAUTION: Input and output cards are electrostatic-sensitive devices. Wear a grounding strap or touch the metal chassis of a known grounded device before handling and installing cards.

NOTE: Make sure that the power cord is not connected before installing any input or output cards.

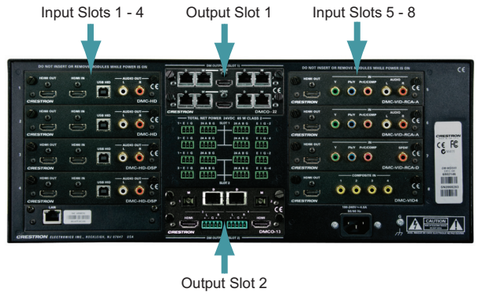
A. Remove screws securing the card to be replaced or the plate covering the card slot to be used. Insert the card into the slot side rails, and make certain the card is fully seated before using the attached screws to secure it in position. (Leave cover plates in place on unused card slots.)

B. Cards may be installed in any of the slots provided, but it is suggested that the cards be installed into the slots in numerical order.

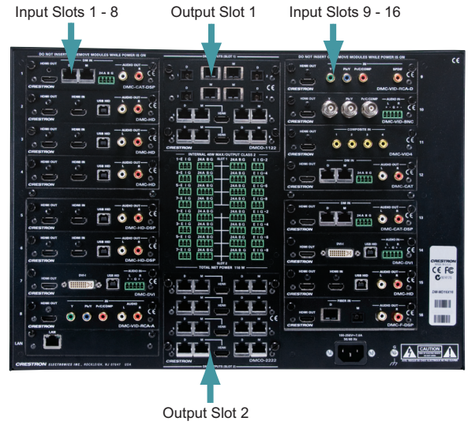
Typical Input Card Installation



DM-MD8X8

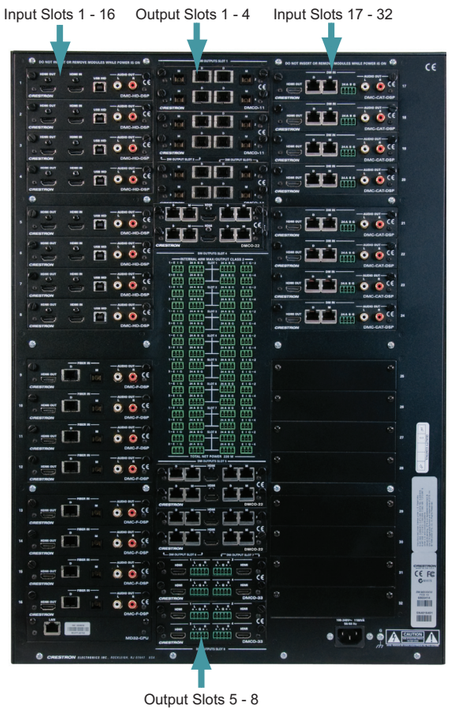


DM-MD16X16



NOTE: Output cards for the DM-MD16X16 are not field configurable. If you need a different configuration, contact Crestron customer service.

DM-MD32X32



3 Connect Outputs

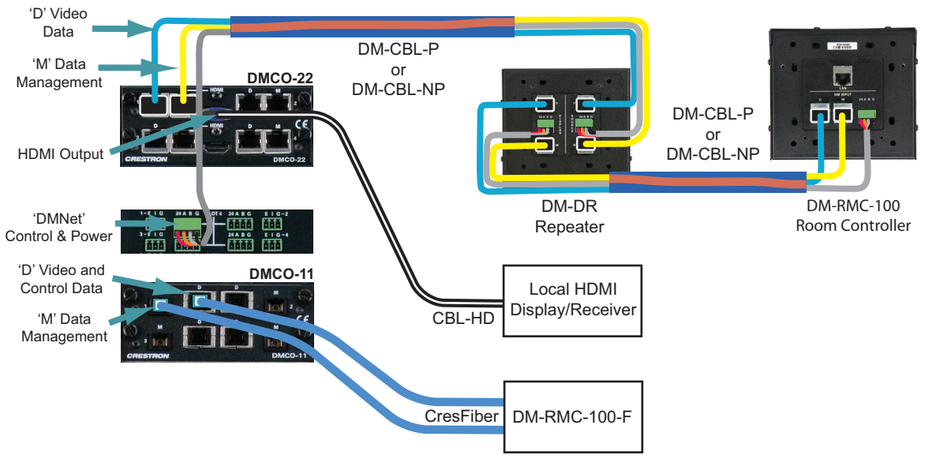
The illustration immediately to the right shows the special connectors used for the three cables contained within Crestron's DigitalMedia™ cable, plus CBL-HD HDMI cable, and CresFiber with an SC50UM connector. Refer to the illustrations at the far right for typical wiring configurations.

A. Use DigitalMedia cable (DM-CBL-P or DM-CBL-NP), to connect switcher outputs directly to a DM-RMC-100 Room Controller. If required, first connect to a DM-DR Repeater and then connect the output of the Repeater to the Room Controller.

For detailed instructions on operation and setup of the DM-DR Repeater and the DM-RMC-100 Room Controller, refer to the latest version of their respective Operations & Installation Guides (Doc. 6745 and Doc. 6743).

B. Use HDMI cable, CBL-HD, to connect HDMI outputs to a local HDMI display/receiver.

C. Use two CresFiber cables to connect the 'D' and 'M' fiber outputs to the corresponding connectors on a local DM-RMC-100-F. DMNet control data is carried along with video data on the 'D' cable.



DM-MD8X8/16X16/32X32

1

For details, refer to the latest version of the **DM-MD8X8/16X16/32X32** DigitalMedia™ Switchers Operations Guide, Doc. 6755.

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DM-MD8X8/16X16/32X32

DigitalMedia™ Switchers

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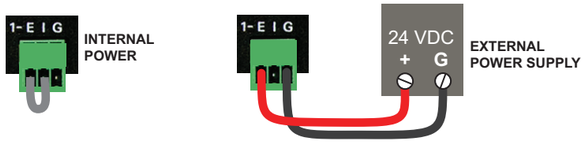
4 Connect DigitaMedia Device Power Source

A. The switchers can supply internal power to connected room controllers and repeaters up to their rated level as shown here:

DM-MD8X8 -- 55 Watts
DM-MD16X16 -- 110 Watts
DM-MD32X32 -- 220 Watts

B. Ensure that the EIG jumpers are installed and wired between **E** and **I** for internal power to be routed to the connected devices.

C. If the number of devices to be connected will exceed the switcher's power rating, connect some of them to an external 24 VDC supply by connecting the **E** and **G** terminals of their EIG connector(s) to the **+** and **G** terminals of the (unpowered) external supply. (Refer to the illustration.)

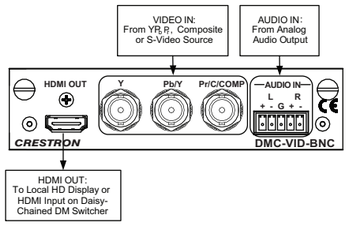


5 Connect Sources to Input Cards

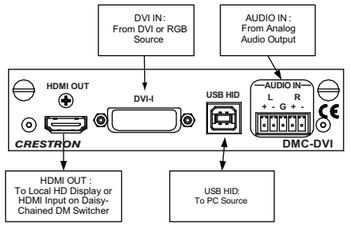
A. There are several input cards available for the switchers, as well as a variety of possible input sources. The diagrams shown here illustrate available input cards and show the types of input each one supports.

B. Refer to the latest version of the DigitalMedia™ Switchers Operations Guide (Doc. 6755) for details.

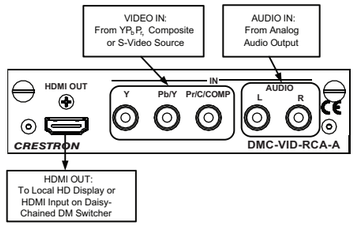
DMC-VID-BNC



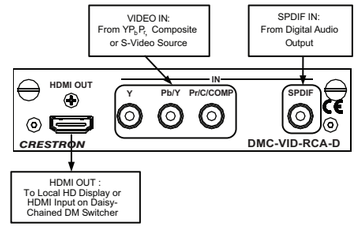
DMC-DVI



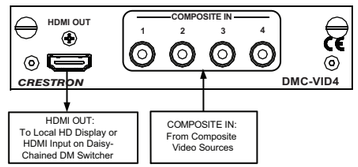
DMC-VID-RCA-A



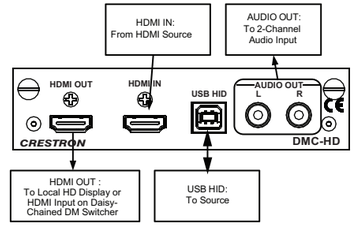
DMC-VID-RCA-D



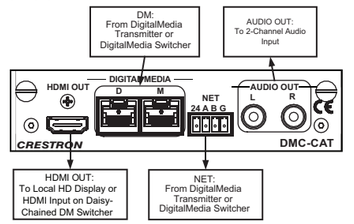
DMC-VID4


HDMI OUT
COMPOSITE IN
1 2 3 4
CRESTRON
DMC-VID4
HDMI OUT: To Local HD Display or HDMI Input on Daisy-Chained DM Switcher
COMPOSITE IN: From Composite Video Sources

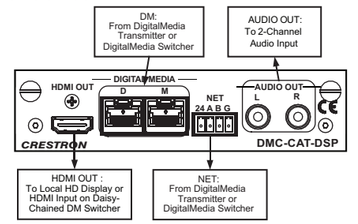
DMC-HD/HD-DSP



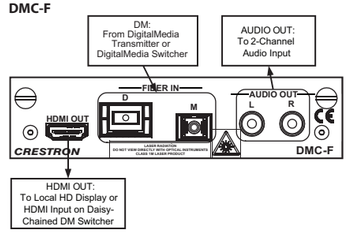
DMC-CAT



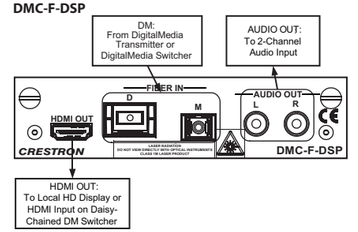
DMC-CAT-DSP



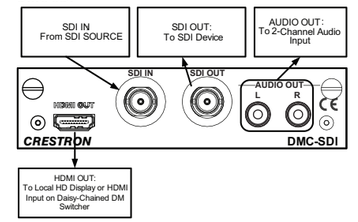
DMC-F



DMC-F-DSP



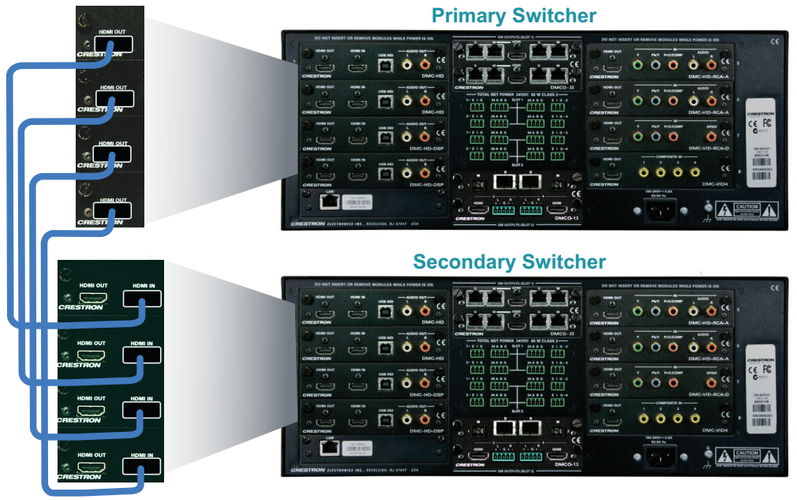
DMC-SDI



6 Connect to a Second Switcher (if necessary)

Connection to a second switcher allows expanded distribution of the input sources connected to the primary switcher.

Connection to the second switcher consists of connecting the HDMI output of the input cards in the primary switcher to HDMI input cards installed on the second switcher.



DM-MD8X8/16X16/32X32

For details, refer to the latest version of the **DM-MD8X8/16X16/32X32** DigitalMedia™ Switchers Operations Guide, Doc. 6755.

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7 Apply Power

NOTE: The switchers do not have a power switch. Power is applied to the units by plugging in their respective power cords.

A. Connect the AC power cord to the switcher. Then connect the power cord to AC power.

B. Connect power to any external 24VDC supplies that were connected in Section 4.

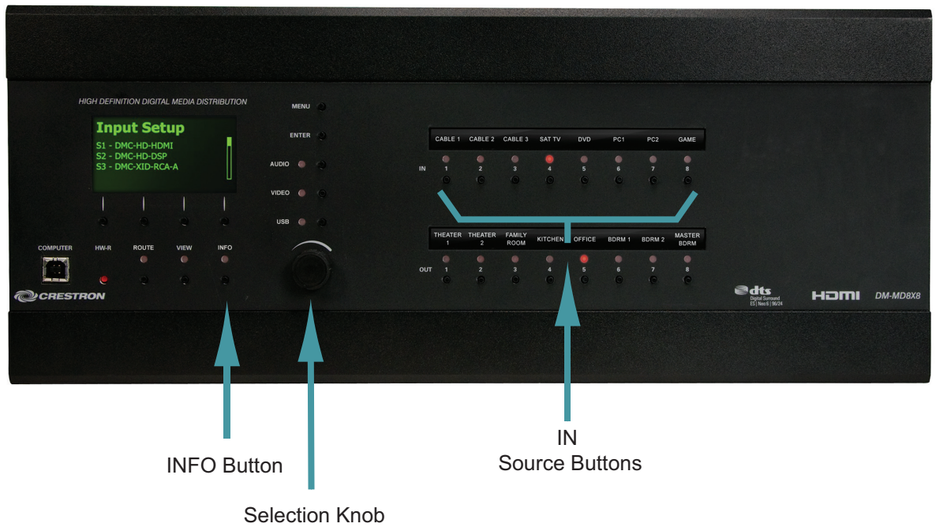
8 Verify Video Inputs

A. Turn on all available sources.

B. Press the front panel **INFO** button.

C. Press the applicable front panel **IN** buttons to verify the signal type and resolution of each video input. Typical information displayed is shown in the illustration below. Use the Selection Knob to scroll down and view all the information.

INFO
Name: 1
Signal Type: Component
Resolution: 1920x1080
Video Type: Interlaced
Frame Rate: 30fps
Aspect Ratio: 16:9



9 Manual Routing of Input Sources

Front panel controls may be used to route input sources to one or more of the available outputs.

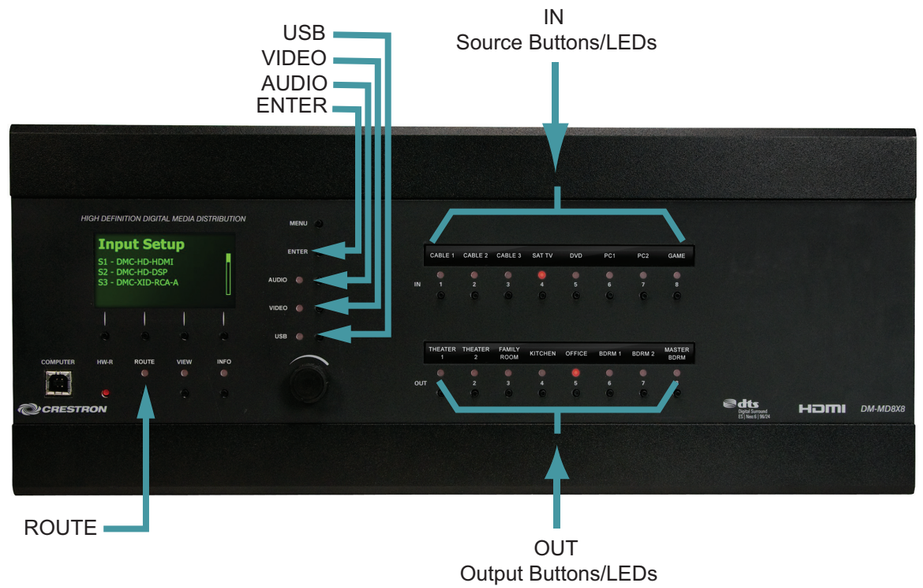
A. Press **ROUTE**, then press one or more of the **AUDIO**, **VIDEO**, and/or **USB** buttons to select the signal type(s) you wish to route.

B. Press the desired input source buttons (**IN**). The corresponding LED will light. The LEDs of any outputs the input (or input combination) is currently connected to will also light.

C. Press one or more of the output buttons (**OUT**). The corresponding LED(s) will flash to indicate it is not yet routed.

D. Press the **ENTER** button to actually route the source; the LED(s) will be on steady, and the display will show the input type and the outputs to which it is routed.

To disconnect an input source from an output, press **ROUTE**, then press the desired output button. The display will show “IN None”. Press **ENTER** and the output will be disconnected from the input.



For details, refer to the latest version of the **DM-MD8X8/16X16/32X32** DigitalMedia™ Switchers Operations Guide, Doc. 6755.

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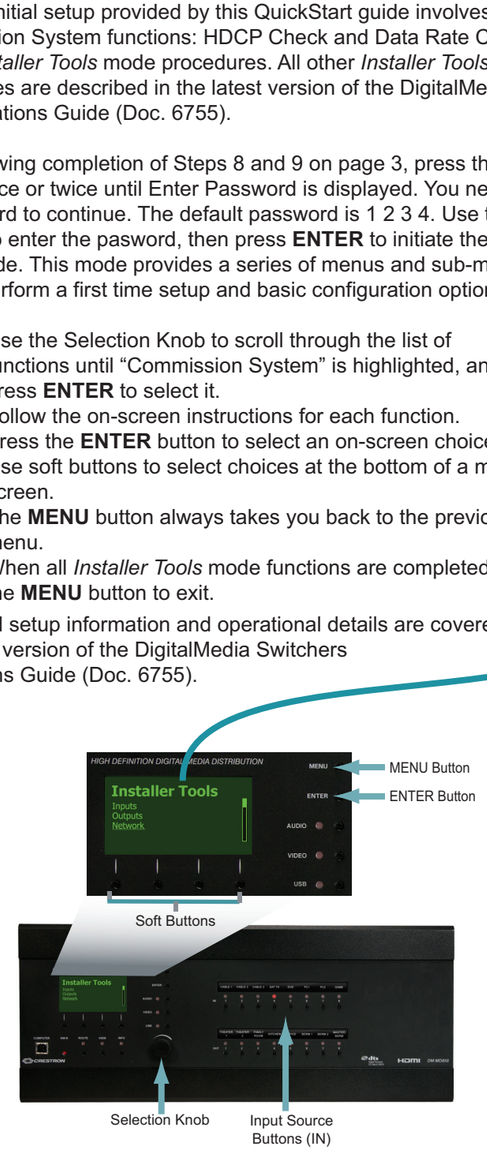
10 Commission System

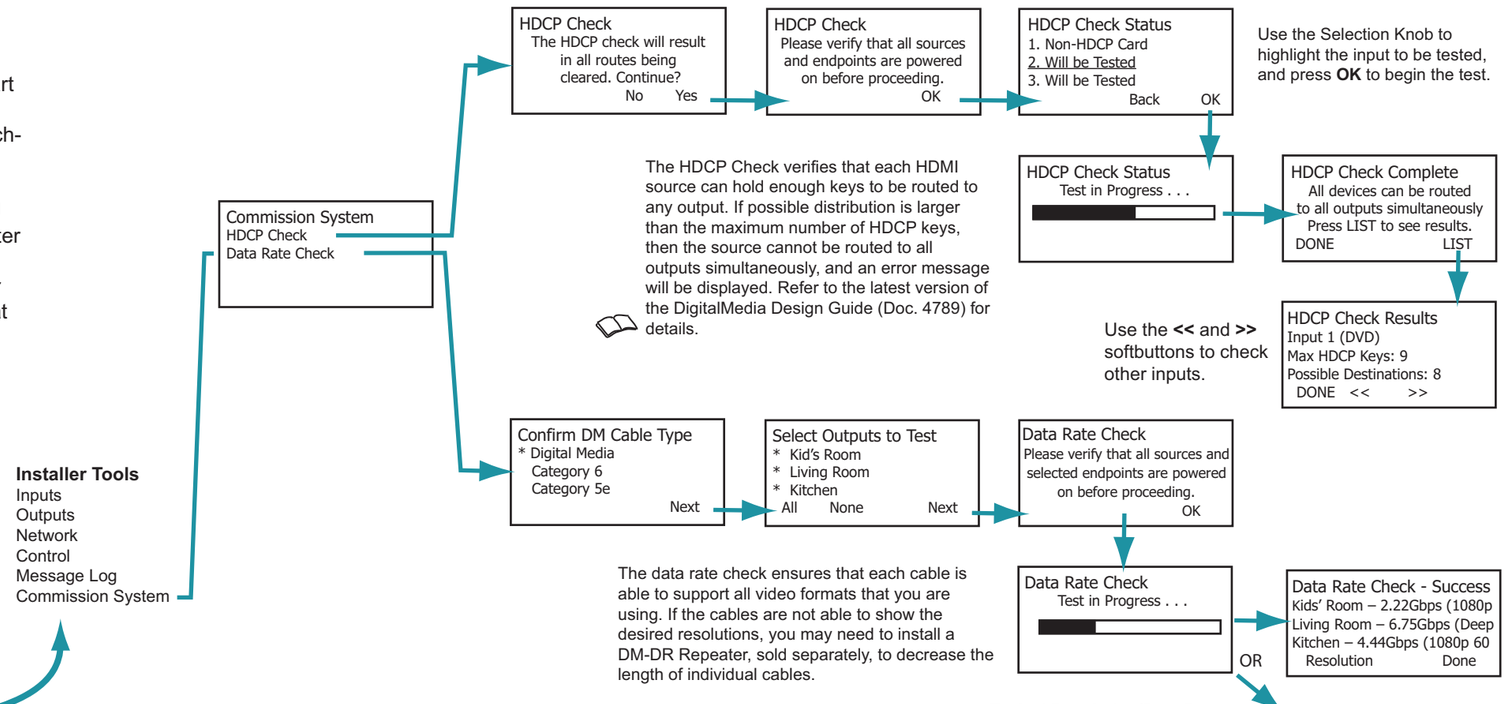
A. The initial setup provided by this QuickStart guide involves the two Commission System functions: HDCP Check and Data Rate Check, part of the *Installer Tools* mode procedures. All other *Installer Tools* mode procedures are described in the latest version of the DigitalMedia Switchers Operations Guide (Doc. 6755).

B. Following completion of Steps 8 and 9 on page 3, press the **MENU** button once or twice until Enter Password is displayed. You need to enter a password to continue. The default password is 1 2 3 4. Use the **IN** buttons to enter the pasword, then press **ENTER** to initiate the *Installer Tools* mode. This mode provides a series of menus and sub-menus that let you perform a first time setup and basic configuration options.

1. Use the Selection Knob to scroll through the list of functions until “Commission System” is highlighted, and press **ENTER** to select it.
2. Follow the on-screen instructions for each function.
3. Press the **ENTER** button to select an on-screen choice.
4. Use soft buttons to select choices at the bottom of a menu screen.
5. The **MENU** button always takes you back to the previous menu.
6. When all *Installer Tools* mode functions are completed, use the **MENU** button to exit.

Advanced setup information and operational details are covered in the latest version of the DigitalMedia Switchers Operations Guide (Doc. 6755).




Installer Tools
Inputs
Outputs
Network
Control
Message Log
Commission System
Commission System
HDCP Check
Data Rate Check
HDCP Check
The HDCP check will result in all routes being cleared. Continue?
No Yes
HDCP Check
Please verify that all sources and endpoints are powered on before proceeding.
OK
HDCP Check Status
1. Non-HDCP Card
2. Will be Tested
3. Will be Tested
Back OK
Use the Selection Knob to highlight the input to be tested, and press OK to begin the test.
HDCP Check Status
Test in Progress . . .
HDCP Check Complete
All devices can be routed to all outputs simultaneously
Press LIST to see results.
DONE LIST
HDCP Check Results
Input 1 (DVD)
Max HDCP Keys: 9
Possible Destinations: 8
DONE << >>
Use the << and >> softbuttons to check other inputs.
The HDCP Check verifies that each HDMI source can hold enough keys to be routed to any output. If possible distribution is larger than the maximum number of HDCP keys, then the source cannot be routed to all outputs simultaneously, and an error message will be displayed. Refer to the latest version of the DigitalMedia Design Guide (Doc. 4789) for details.
Confirm DM Cable Type
* Digital Media
Category 6
Category 5e
Next
Select Outputs to Test
* Kid’s Room
* Living Room
* Kitchen
All None Next
Data Rate Check
Please verify that all sources and selected endpoints are powered on before proceeding.
OK
The data rate check ensures that each cable is able to support all video formats that you are using. If the cables are not able to show the desired resolutions, you may need to install a DM-DR Repeater, sold separately, to decrease the length of individual cables.
Data Rate Check
Test in Progress . . .
Data Rate Check - Success
Kids’ Room – 2.22Gbps (1080p
Living Room – 6.75Gbps (Deep
Kitchen – 4.44Gbps (1080p 60
Resolution Done
OR
Data Rate Check - Error
Kids’ Room – No Video
Living Room – No Video
Kitchen – 4.44Gbps (1080p 60
Resolution Done

Typical Resolution/Data Rate Configurations

RESOLUTION	DATA RATE
480p 60Hz	810Mbps
1024X768 60Hz	1.95Gbps
720p 60Hz	2.22Gbps
1280X1024 30Hz	3.24Gbps
1080i 30Hz	2.22Gbps
1080p 24Hz	2.22Gbps
1080p 60Hz	4.44Gbps
1920X1200 60Hz	4.62Gbps
Deep Color	6.75Gbps

To view the resolution of the signal, press the **Resolution** softbutton. (The softbutton name changes to **Data Rate**.) Refer to the adjacent table for typical resolution/data rate configurations. Press the **Done** softbutton when the tests are finished.

NOTE: The switcher controls the IP setup of connected DM-RMC-100s.

- When the switcher is set to DHCP on, all DM-RMC-100s will also be set to DHCP on.
- When the switcher is set to DHCP off, all DM-RMC-100s and input cards with USB connectors will also be set to DHCP off and their static IP address will be set by the switcher in the following fashion:

  <DM-MD8X8 IPaddress> + <slot #> = <DM-RMC IP address>

EX: DM-MD8X8: 192.168.1.200
DMC-HD (slot 1): 192.168.1.201
DM-RMC-100 output 1 (slot 17): 192.168.1.217
DM-RMC-100 output 8 (slot 24): 192.168.1.224

This reduces the time required to set up the IP configuration of DM devices.

For details on setting IP addresses of the input and output cards for each switcher, refer to the latest version of the DigitalMedia Switchers Operations Guide (Doc. 6755).

11 Setup EDID Configuration Using DM Tools

Configure the switcher’s EDID information using Crestron’s DigitalMedia Tools application.

Open Crestron Toolbox™ – click on the toolbar DMTool icon ( ) and connect to your DM switcher. Visit www.crestron.com/digitalmedia for more information on using the DM Tools.

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